*** STUDENT'S T - TEST *** Cross-Sectional Area measurement

V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

AEM 1-5 DFPT R+0 EDL DARK FIBERS VS AEM 1-5 FLIGHT R+0 EDL DARK

Calculated F-ratio = 1.5422 with 4 , 4 degrees of freedom.

The variances are equal since 1.5422 is less than 6.3900

*** R A W D A T A ***

		GROUP 1			GROUP 2	
1 ====>	4.24	1358.1500	320%	3.51	1158.2100	330%
2 ====>	3.87	1448.4800	334	4.04	1248.2900	309
3 ====>	4.68	1571.5700	336	3.61	1380.4400	382
4 ====>	3.52	1176.2900	334	3.39	1074.2000	38+
5 ====>	4.09	1365.3400	334	3.55	1158.1200	326
N's ===>		5			5	
Total ===>		6919.8300			6019.2600	
Means ===>		1383.9660			1203.8520	13.01%
Sum of squares ===>		83500.0317			54142.3067	
Variances ===>		20875.0079			13535.5767	
Std deviations ===>		144.4819			116.3425	

Calculated value of T = 2.1711 with 8 degrees of freedom.

The exact P-value is: 0.0617 or 93.83%

The samples DO differ significantly at the 5% level. ONE-TAILED.

The samples do NOT differ significantly at the 1% level. ONE-TAILED.

The samples do NOT differ significantly at the 5% level. TWO-TAILED.

The samples do NOT differ significantly at the 1% level. TWO-TAILED.

*** STUDENT'S T - TEST *** Cross-sectional Area measuremen

V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

AEM 1-5 DFPT R+0 EDL MODERATE FIBERS VS AEM 1-5 FLIGHT EDL MODERA

Calculated F-ratio = 1.0802 with 4 , 4 degrees of freedom.

The variances are equal since 1.0802 is less than 6.3900

*** R A W D A T A ***

		GROUP 1	GROUP 2
1 ====>	7.73	2475.1600	2075.1900 6.29
2 ====>	6.34	2369.7900	1969.9600 6.38
3 ====>	7.26	2439.4700	2044.2400 5.35
4 ====>	6.72	2245.4100	1841.8700 5.81
5 ====>	6.87	2294.7500	1885.5600 5.78
N's	===>	5	5
Total	===>	11824.5800	9816.8200
Means	===>	2364.9160	1963.3640 16.98%
Sum of squares	===>	36940.7459	39903.7433
Variances	===>	9235.1865	9975.9358
Std deviations	===>	96.0999	99.8796

Calculated value of T = 6.4781 with 8 degrees of freedom.

The exact P-value is: 0.0002 or 99.98%

The samples DO differ significantly at the 5% level. ONE-TAILED.

The samples DO differ significantly at the 1% level. ONE-TAILED.

The samples DO differ significantly at the 5% level. TWO-TAILED.

The samples DO differ significantly at the 1% level. TWO-TAILED.

*** STUDENT'S T - TEST *** cross-sectional Area Measurement

V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

AEM 1-5 DFPT R+0 EDL LIGHT FIBERS VS AEM 1-5 FLIGHT R+0 EDL LIGHT

Calculated F-ratio = 1.7748 with 4 , 4 degrees of freedom.

The variances are equal since 1.7748 is less than 6.3900

*** R A W D A T A ***

	GROUP 1		GROUP 2	
1 ====>	1067.0400	3.33	1178.8400	3.57
2 ====>	1049.9500	2.81	1044.5600	3.38
3 ====>	1338.0900	3.98	1037.3100	2.72
4 ====>	1041.8900	3.12	945.9400	2.91
5 ====>	1093.2500	3.27	955.7000	2.93
N's ===>	5		5	
Total ===>	5590.2200		5162.3500	
Means ===>	1118.0440		1032.4700	7.65% ↑
Sum of squares ===>	62072.6171		34974.8444	
Variances ===>	15518.1543		8743.7111	
Std deviations ===>	124.5719		93.5078	

Calculated value of T = 1.2285 with 8 degrees of freedom.

The exact P-value is: 0.2542 or 74.58%

The samples do NOT differ significantly at the 5% level. ONE-TAILED.

The samples do NOT differ significantly at the 1% level. ONE-TAILED.

*** STUDENT'S T - TEST *** Cross-sectional Area Measurement

V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

RAHF 1-10 DFPT R+0 EDL DARK FIBERS VS RAHF 1-10 FLIGHT R+0 DARK

Calculated F-ratio = 1.3353 with 9 , 9 degrees of freedom.

The variances are equal since 1.3353 is less than 3.1800

SLS-1 DFPT RFR VS RFR EDL Dark fiber Ratios

*** R A W D A T A ***

area measurement / Body wt.

		GROUP 1		GROUP 2		
1 ====>	4.37	1529.0400	350	1348.3200	334	4.04
2 ====>	4.73	1696.5900	359	1495.7100	336	4.45
3 ====>	5.36	1786.5400	333	1586.1300	342	4.64
4 ====>	4.17	1411.1000	338	1232.8400	297	4.15
5 ====>	3.74	1245.6400	333	1182.3100	311	3.80
6 ====>	4.27	1455.1700	341	1309.1900	335	3.90
7 ====>	4.58	1480.2100	323	1240.9800	330	3.76
8 ====>	4.58	1493.6300	326	1241.1800	344	3.61
9 ====>	5.17	1607.7500	311	1445.7800	324	4.46
10 ====>	4.24	1548.8700	365	1342.3100	337	3.98
N's ===>		10		10		
Total ===>		15254.5400		13424.7500		
Means ===>		1525.4540		1342.4750		
Sum of squares ===>		204159.5690		152897.3023		
Variances ===>		22684.3966		16988.5891		
Std deviations ===>		150.6134		130.3403		

11.99% ↑

Calculated value of T = 2.9051 with 18 degrees of freedom.

The exact P-value is: 0.0094 or 99.06%

The samples DO differ significantly at the 5% level. ONE-TAILED.

The samples DO differ significantly at the 1% level. ONE-TAILED.

The samples DO differ significantly at the 5% level. TWO-TAILED.

The samples DO differ significantly at the 1% level. TWO-TAILED.

*** STUDENT'S T - TEST *** Cross-sectional Area Measurement

V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

RAHF 1-10 DFPT R+0 EDL MODERATE FIBERS VS RAHF 1-10 FLIGHT MODERA

Calculated F-ratio = 1.1201 with 9 , 9 degrees of freedom.

The variances are equal since 1.1201 is less than 3.1800

*** R A W D A T A ***

	GROUP 1		GROUP 2	
1 ====>	2783.0300	7.95	2308.8700	6.91
2 ====>	2475.1200	6.87	1995.0700	5.94
3 ====>	3015.6900	8.06	2648.1800	7.74
4 ====>	2299.6800	6.80	1882.5400	6.34
5 ====>	2287.6900	6.87	2192.0500	7.05
6 ====>	2645.8000	7.76	2115.3800	6.31
7 ====>	2491.3400	7.71	2203.1000	6.68
8 ====>	2311.5700	7.09	1940.6200	5.64
9 ====>	2822.5700	9.08	2417.5800	7.46
10 ====>	2428.8600	6.65	2008.9200	5.96
N's ===>	10		10	
Total ===>	25561.3500		21712.3100	
Means ===>	2556.1350		2171.2310	15.06% ↑
Sum of squares ===>	566304.2327		505582.5563	
Variances ===>	62922.6925		56175.8396	
Std deviations ===>	250.8440		237.0144	

Calculated value of T = 3.5269 with 18 degrees of freedom.

The exact P-value is: 0.0024 or 99.76%

The samples DO differ significantly at the 5% level. ONE-TAILED.

The samples DO differ significantly at the 1% level. ONE-TAILED.

The samples DO differ significantly at the 5% level. TWO-TAILED.

The samples DO differ significantly at the 1% level. TWO-TAILED.

*** STUDENT'S T - TEST *** Cross-sectional Area Measurement

V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

RAHF 1-10 DFPT R+0 EDL LIGHT FIBERS VS RAHF 1-10 FLIGHT LIGHT EDL

Calculated F-ratio = 21.4552 with 9 , 9 degrees of freedom.

The variances are UNequal since 21.4552 is greater than 3.1800

*** R A W D A T A ***

	GROUP 1		GROUP 2	
1 ====>	1578.7100	4.51	1173.4200	3.51
2 ====>	1206.7800	3.36	996.9500	2.97
3 ====>	1129.8600	3.39	974.9600	2.85
4 ====>	1028.5300	3.04	936.0800	3.15
5 ====>	0.0000		933.9400	3.00
6 ====>	0.0000		1253.0200	3.74
7 ====>	0.0000		1136.7200	3.44
8 ====>	1258.1200	3.86	1057.6500	3.07
9 ====>	0.0000		1297.9100	4.01
10 ====>	0.0000		879.8900	2.61
N's ===>	10		10	
Total ===>	6202.0000	1240.40 %	10640.5400	
Means ===>	620.2000		1064.0540	14.22% ↑
Sum of squares ===>	4019486.3474		187343.1228	
Variances ===>	446609.5942		20815.9025	
Std deviations ===>	668.2886		144.2772	

Calculated value of T = 2.0530 with 10 degrees of freedom.

The exact P-value is: 0.0672 or 93.28%

The samples DO differ significantly at the 5% level. ONE-TAILED.

The samples do NOT differ significantly at the 1% level. ONE-TAILED.

The samples do NOT differ significantly at the 5% level. TWO-TAILED.

The samples do NOT differ significantly at the 1% level. TWO-TAILED.